

IN THE SPECIFICATION:

Please amend the specification by adding the following paragraphs at page 12, line 22:

Figure 13 shows a method for determining an optimal transition-limiting code for use in a multi-level signaling system in accordance with an embodiment of the present disclosure.

Figure 14 shows a method for determining an optimal transition-limiting code for use in a multi-level signaling system in accordance with an alternative embodiment of the present disclosure.

Figure 15 shows a method for determining an optimal transition-limiting code for use in a multi-level signaling system in accordance with another alternative embodiment of the present disclosure.

Figure 16 shows a method for determining an optimal transition-limiting code for use in a multi-level signaling system in accordance with another alternative embodiment of the present disclosure.

Please amend the specification by adding the following paragraphs at page 21, between lines 3 and 4:

For example, referring to Figure 13, there is shown a method 1300 for determining an optimal transition-limiting code for use in a multi-level signaling system in accordance with an embodiment of the present disclosure. The method 1300 may start at step 1302. At step 1304, the method 1300 comprises determining a coding gain for each of a plurality of transition-limiting codes. Step 1304 may comprise a.) selecting a first transition-limiting code having a first degree of reduction or elimination of full-swing transitions, b.) determining the coding gain of a data transmission over a channel operating at a predetermined data rate in the multi-level signaling system utilizing the first transition-limiting code based at least in part upon the first degree of reduction or elimination of full-swing transitions, and c.) repeating steps a and b utilizing a second transition-limiting code having a second degree of reduction or elimination of full-swing transitions. At step 1306, the method 1300 comprises selecting one of the plurality of transition-limiting codes having a largest coding gain for use in the multi-level signaling system. The method 1300 may end at step 1308.

Referring to Figure 14, there is shown a method 1400 for determining an optimal transition-limiting code for use in a

multi-level signaling system in accordance with an alternative embodiment of the present disclosure. The method 1400 may start at step 1402. At step 1404, the method 1400 comprises determining a coding gain for each of a plurality of transition-limiting codes. Step 1404 may comprise a.) characterizing a first pulse response for a channel operating at a predetermined data rate in the multi-level signaling system utilizing a first transition-limiting code having a first degree of reduction or elimination of full-swing transitions, b.) determining the coding gain of a data transmission over the channel using the first transition-limiting code based at least in part upon the first degree of reduction or elimination of full-swing transitions, and c.) repeating steps a and b utilizing a second transition-limiting code having a second degree of reduction or elimination of full-swing transitions. At step 1406, the method 1400 comprises selecting one of the plurality of transition-limiting codes having a largest coding gain for use in the multi-level signaling system. The method 1400 may end at step 1408.

Referring to Figure 15, there is shown a method 1500 for determining an optimal transition-limiting code for use in a multi-level signaling system in accordance with another alternative embodiment of the present disclosure. The method

1500 may start at step 1502. At step 1504, the method 1500 comprises determining a coding gain for each of a plurality of transition-limiting codes. Step 1504 may comprise a.) selecting a first transition-limiting code having a first sampling rate, b.) determining the coding gain of a data transmission over a channel operating at a predetermined data rate in the multi-level signaling system utilizing the first transition-limiting code based at least in part upon the first sampling rate, and c.) repeating steps a and b utilizing a second transition-limiting code having a second sampling rate. At step 1506, the method 1500 comprises selecting one of the plurality of transition-limiting codes having a largest coding gain for use in the multi-level signaling system. The method 1500 may end at step 1508.

Referring to Figure 16, there is shown a method 1600 for determining an optimal transition-limiting code for use in a multi-level signaling system in accordance with another alternative embodiment of the present disclosure. The method 1600 may start at step 1602. At step 1604, the method 1600 comprises determining a coding gain for each of a plurality of transition-limiting codes. Step 1604 may comprise a.) characterizing a first pulse response for a channel operating at a predetermined data rate in the multi-level signaling system

utilizing a first transition-limiting code having a first sampling rate, b.) determining the coding gain of a data transmission over the channel using the first transition-limiting code based at least in part upon the first pulse response, and c.) repeating steps a and b utilizing a second transition-limiting code having a second sampling rate. At step 1606, the method 1600 comprises selecting one of the plurality of transition-limiting codes having a largest coding gain for use in the multi-level signaling system. The method 1600 may end at step 1608.